

CERN-RRB-2009-041

15 APRIL 2009

PRINCIPAL LHCC DELIBERATIONS

15TH MEETING OF THE COMPUTING RESOURCES REVIEW BOARD

28 APRIL 2009

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GENERAL

This document summarises the principal LHCC deliberations concerning the World-wide LHC Computing Grid (W-LCG) Project at the Committee's sessions in November 2008 and February 2009.

CONCERNS FROM THE PREVIOUS COMPUTING RESOURCES REVIEW BOARD

| SUB-SYSTEM | CONCERN | STATUS |
|------------|---|---|
| Resources | The pledged resources do not fully match the experiment requirements, with the significant short-fall for ALICE remaining noteworthy. | ALICE is assessing how the experiment's physics reach might be affected should the requested computing resources not materialize fully. |

GENERAL STATUS

The experience of the W-LCG operations in 2008 has been very positive and additional effort is being put to increase the reliability of the services and to reduce the rate of failures. Given the present understanding of the LHC schedule for 2009, the LHC experiments consider that the estimates for their computing needs in 2009-2010 remain valid. Neither the experiments nor the W-LCG could support any delay in the delivery of the pledged resources for 2009-2010. In view of the success of the Common Computing Readiness Challenge (CCRC08), the LHCC encourages the W-LCG Project to realise a similar exercise prior to LHC collisions in 2009.

LHC EXPERIMENTS

Requirements for computing resources are being updated after the revised accelerator schedule was announced following the Chamonix Workshop. Moreover, the event sizes and processing times are being reviewed. There might likely be an evolution in computing models of the experiments once LHC collision data are recorded and tools are being put in place to understand the data usage.

W-LCG SUB-AREAS

MIDDLEWARE

Good progress was reported on the Middleware, with no major issues identified. Middleware projects around the world are providing a stable service and link up with each other as required.

TIER CENTRES

Good progress was reported on the installation of resources and the performance of the Tier-0, Tier-1 and Tier-2 centres. Substantial improvements in reliability, availability, monitoring and usage have occurred during 2008, which can be attributed partly to the successful CCRC08. The CERN Computer Centre building operates close to its limit of electrical capacity, which is expected to be reached in 2010, and there are plans to build a new data centre on the Preveessin site. Reliability of the Tier-1 centres has been good, with a rapid response to resolve problems, and monitoring of the Tier-2 sites has improved.

DATA STORAGE AND COMPUTING POWER

The pledged resources do not fully match the experiment requirements, with the significant short-fall for ALICE remaining noteworthy. ALICE is assessing how the experiment's physics reach might be affected should the requested computing resources not materialize fully.

APPLICATION AREA

Good progress was reported on the Application Area, with no major concerns identified.